

CLIMATOLOGICAL DATA FOR DECEMBER, 1911.

DISTRICT No. 3, OHIO VALLEY.

Prof. FERDINAND J. WALZ, District Editor.

GENERAL SUMMARY.

Unseasonably mild weather prevailed during the greater portion of the month; in fact, in most sections the month as a whole was the warmest December in the past 20 years. The month was remarkably free from cold waves usual at this time of the year, there being but two short periods when the temperature was much below freezing. Maximum temperatures were not remarkably high, but minimum temperatures as a rule were exceptionally high for December. During the first decade fair and pleasant weather prevailed over the southern half of the district, and also during a portion of the time over the northern half, but considerable snow fell in northern sections from Ohio eastward during the first three or four days. After about the 8th or 9th the weather was largely cloudy, rainy, and generally disagreeable. Consequently the ground was kept wet and soft and roads were very muddy, which conditions hindered greatly the gathering of the remainder of the corn crop from the field, as well as the movement of grain in general. Much of the corn rotted in some sections.

There was practically no frost in the ground. Snowfall was unimportant over the major portion of the district, and even where it was considerable, as in the more elevated portions of the northern sections and in the State of Ohio, it was much less than is usual in December. The winds were unusually strong through most of the month, but there were no severe storms or damaging gales until about the 26th, 27th, and 28th.

Considering the district as a whole, the most important event of the month was the excessive rains which deluged the Tennessee and much of the Cumberland River Basins during the latter part of the month.

TEMPERATURE.

The average temperature of the month ranged from 3° to 7° above normal in all parts of the district, and it was the highest at many stations for December since 1891. During the first five days the temperature was below normal, the coldest days were the 3d and 4th, when minimum temperatures ranged between -3° and about 20°. This proved to be the coldest period in the whole month and the only time when a temperature as low as zero was reached in the entire district.

A warm wave set in about the 6th, and during the next 20 days the temperature was almost continually above normal, the warmest being about the 9th-11th, when maximum temperatures of 65° to 75° were registered, and the mean daily temperatures ranged from 12° to 23° above normal. The weather was notably warm again, however, during the entire period from the 21st to 26th, inclusive. A moderate cold wave overspread the district on the 28th and 29th, when minimum tem-

peratures of between 5° and 20° were registered. There was a quick change to warmer, however, and on the 30th and 31st the average temperatures were from 4° to 14° above normal.

PRECIPITATION.

The precipitation was below normal over the Wabash Basin of Illinois and Indiana; about normal over Ohio, western Pennsylvania, West Virginia, southwestern Virginia, and western North Carolina, but considerably above normal over the rest of the district. From south-central Kentucky southward over Tennessee and northern Alabama, where the monthly amounts ranged between 7 and 16 inches, the precipitation was not only the greatest for any December of record but the amounts rank among the greatest that ever occurred in these sections during any month in the history of the Weather Bureau. There were three periods of heavy rains over these sections, namely, 11th-16th, 20th-27th, and 30th-31st. A considerable percentage of the excessive amounts in Tennessee fell during the 26th-27th, when 24-hour amounts of from 2.50 to 6.46 inches were received at many stations in the western portion of that State.

During the first decade precipitation was rather light and scattered, except that there was considerable snow over the more northerly sections, particularly in Ohio and western Pennsylvania. From the 11th to the 16th, inclusive, there was a great deal of rain over most of the district, it was particularly heavy over the Tennessee River drainage area and over Kentucky, and moderately heavy over the rest of the district. During the period 17th-19th precipitation was light and scattered, but during the entire last decade rains were of daily occurrence over practically all of the district. They were moderately heavy over a large portion of the district on several days, but extraordinarily heavy, as stated, and quite destructive over western Tennessee and northern Alabama about the 26th and 27th.

SNOWFALL.

Snowfall was unusually light for December over the entire Ohio Valley, and at no time during the month was the snow covering on the ground of much importance. Over all the sections south of the Ohio River, except in the more elevated portions of West Virginia, the total amount of snow for the month was less than 1 inch, and at very few stations was it more than a trace. The same can be said for the southern portions of Illinois and Indiana. Over the upper Wabash sections of those two States the snowfall ranged from a trace to about 6 or 7 inches. Over central and northern Ohio and eastward over northern West Virginia, western Pennsylvania, and southwestern New York the total snowfall of the month ranged between about 2 and 15 inches, and the greatest amount

on the ground at any one time was about 6.5 inches in northeastern Ohio, and over the watersheds of some of the upper Ohio tributaries in western Pennsylvania. Most of the snow fell early in the month and was rapidly carried away by the warm weather which followed.

MISCELLANEOUS.

The rather heavy snow early in the month, together with the warm rains about a week later, caused rapid rises in the rivers of the southern watersheds of the State of Ohio. The Scioto River passed the flood stage in some places and overflowed the lowlands, also the Muskingum River passed the flood stage at one or two places, but there was no damage of consequence from floods in either of these rivers.

There were good stages of water in most of the rivers tributary to the Ohio at various times during the month, but no floods other than those mentioned above except in the Cumberland and Tennessee. Along these rivers there was considerable damage in consequence of the excessive rains near the end of the month. There was also a great deal of damage from overflowing of creeks and small streams in western Tennessee.

The section director at Nashville, Tenn., reports as follows in regard to the high water and floods in the lower Cumberland River:

On December 26 the river was at medium stage and about at the crest of a slight rise. During the 26th and 27th heavy rains occurred, which caused an immediate and rapid rise at all points. The heaviest

rainfall seems to have been at Nashville and in surrounding territory within a radius of about 25 to 50 miles, the greatest downpours occurring in the southern portion of this area. Creeks in this section rose with almost unprecedented rapidity during the afternoon of the 26th. At Nashville 1.10 inches of rain occurred in 56 minutes between 10 and 11 a. m., and 1 inch in 37 minutes from 1.30 to 2.07 p. m. on the 26th. In all during the 26th and 27th there were 4.10 inches of rain at Nashville. By 7 a. m. of the 27th the Cumberland River had risen 10 to 35 feet in the various sections. It reached a crest of 38.7 feet at Nashville and 43.9 feet at Clarksville on the 28th. On the morning of the 30th the river was falling to all points but was still 1.6 feet above the flood stage at Clarksville. Rain began again on the morning of the 30th and considerable rain fell during that and the following day. The river began rising again on the 31st and a crest of 41.6 feet was reached at Nashville during the night of December 31-January 1. It reached a crest of 48.3 feet at Clarksville during the night of January 1-2, which was 5.3 feet above the flood stage. Due warnings were sent to all interests concerned in advance of the flood, which were the means of saving considerable property that would have otherwise been lost.

ENGINEERING NOTES.

The Nolachuckey Power Co. is planning to install a power plant and cotton mill at Embreeville, Tenn., a few miles down the river from Erwin. A dam 90 feet in height will be built across the river, and this, it is estimated, will create a lake 6 miles in length. It is the purpose of the company to distribute electric power to all the neighboring towns. A similar dam and power plant constructed by the Watauga Power Co. has been completed at the Horseshoe in the Watauga River. This plant has a capacity of producing a voltage of 48,000, or about 3,200 horsepower. Connection has been made for delivering this power to Bristol, Tenn.

TABLE 1.—Climatological data for December, 1911. District No. 3, Ohio Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
<i>New York.</i>																					
Allegany.....	Cattaraugus.....	1,441	5	34.6	+ 8.4	62	11	11	3	20	43	3.33	- 0.01	0.47	7.2	19	5	4	22	nw. s. w.	Chas. E. Whitney. Dr. Chas. F. Hoffman. John W. Alles.
Bolivar.....	Allegany.....	1,800	17	33.5	.....	60	11	3	4	37	2.72	.....	0.60	14.5	18	8	8	15	.....	.....
Olean.....	Cattaraugus.....	3	.....	.....	.....	.....	.....	.....	.....	2.51	.....	0.70	7.0	13	8	8	17	.....	.....
<i>Pennsylvania.</i>																			.....	.....
Aleppo.....	Greene.....	1,135	10	38.3	+ 7.5	67	10	10	29	32	8.10	- 0.15	0.65	3.0	17	9	1	21	sw.	J. S. Hinerman.	
Baldwin.....	Butler.....	1,404	5	36.1	.....	62	16	8	4	32	3.32	.....	0.60	10.0	14	3*	0*	27*	w.	S. H. Templeton.
Beaver Dam.....	Beaver.....	674	17	.....	.....	.....	.....	.....	.....	.....	3.61	+ 0.94	0.68	1.9	4	2	2	25	sw.	U. S. Englebar.
Brookville.....	Jefferson.....	1,173	20	32.6	.....	65	12	5	3	41	1.80	- 1.27	0.60	12.0	8	.....	.....	.....	w.	H. C. Bartholomew.
Clarion.....	Clarion.....	1,078	26	.....	.....	.....	.....	.....	.....	2.93	- 0.41	0.64	9.0	14	6	0	0	25	w.	J. A. Miller.
Claysville.....	Washington.....	1,127	7	38.2	.....	69	10	11	4†	35	3.64	.....	0.65	6.5	17	8	5	18	w.	E. T. Buchanan.
Confluence.....	Somerset.....	1,352	27	33.7	+ 4.6	60	17	11	4†	30	4.40	+ 1.06	0.84	7.0	20	7	3	21	ne.	Grant Pyle.	
Franklin.....	Venango.....	955	37	.....	.....	.....	.....	.....	.....	4.67	+ 1.22	0.76	8.1	16	4	1	26	sw.	F. E. Dixon.	
Freeport.....	Armstrong.....	772	38	.....	.....	.....	.....	.....	.....	3.68	+ 0.68	0.81	T.	15	3	6	22	sw.	Mrs. Anna R. Burtner.	
Greensburg.....	Green.....	768	23	.....	.....	.....	.....	.....	.....	3.68	+ 0.68	0.81	T.	14	6	0	25	sw.	James G. Cramer.	
Greenville.....	Mercer.....	950	15	35.2	+ 4.2	61	10	5	4†	37	4.49	+ 1.70	0.61	10.0	14	2	0	20	s.	A. M. Orr.	
Indiana.....	Indiana.....	1,350	14	36.7	+ 7.0	68	10	11	4	34	5.10	+ 1.55	0.95	6.5	15	6	5	17	s.	R. W. Wehrle.	
Johnstown.....	Cambria.....	1,184	23	38.1	+ 5.4	68	10	15	4†	36	4.13	+ 0.42	0.70	10.4	21	8	6	17	s.	E. C. Lorentz.	
Lock No. 4.....	Washington.....	718	25	.....	.....	.....	.....	.....	.....	3.23	+ 0.34	0.60	0.5	18	3	4	24	s.	R. T. McGowan.	
Lycippus.....	Westmoreland.....	1,420	19	38.0	+ 5.7	64	10	10	4	23	4.72	+ 1.16	0.71	8.8	16	.....	.....	.....	.....	Murray Forbes.
Pittsburgh.....	Allegheny.....	842	41	39.1	+ 4.4	66	10	14	28	34	3.70	+ 1.08	0.68	7.9	19	4	7	20	sw.	U. S. Weather Bureau.	
Seagertown.....	Crawford.....	1,116	20	34.6	+ 5.8	61	10	7	29	35	4.20	+ 0.79	0.62	6.5	20	0	7	24	sw.	J. G. Apple.	
Skidmore.....	Lawrence.....	1,000	23	34.9	.....	62	10	6	4	32	2.57	.....	0.65	6.0	6	5	1	16	nw.	W. H. Stoner.
Somerset.....	Somerset.....	2,260	55	34.6	+ 5.9	60	11†	8	5	35	2.69	- 1.39	0.40	9.0	11	0	15	21	sw.	W. M. Schrock.	
Uniontown.....	Fayette.....	999	23	40.3	+ 5.3	70	10	15	4†	34	4.05	+ 0.29	0.61	T.	11	4	6	21	sw.	Wm. Hunt.	
Warren.....	Warren.....	1,137	22	34.9	+ 7.1	62	10	7	4	30	2.96	- 0.42	0.65	9.0	13	6	0	25	s.	Anna Simpson.	
<i>Maryland.</i>																			.....	.....
Deer Park.....	Garrett.....	2,457	17	35.6*	+ 7.8	67*	15	7*	29	43*	3.27	- 0.45	0.65	10.0	12	.....	.....	.....	.....	S. P. Specht.
Grantsville.....	do.....	2,351	17	35.8	+ 6.8	60	10†	11	20	30	4.10	+ 0.28	0.82	9.0	11	9	2	20	.....	J. S. Miller.
Oakland.....	do.....	2,461	11	34.9	.....	63	10†	9	5†	41	2.64	.....	0.50	6.0	15	6	7	18	w.	R. E. Weber.
<i>West Virginia.</i>																			.....	.....
Bancroft.....	Putnam.....	574	10	42.6	.....	70	8†	16	29	43	3.40	+ 0.46	0.70	.....	14	4	0	27	ne.	R. E. Dent.
Beeckley.....	Raleigh.....	2,440	12	38.6	+ 5.9	70	2	7	4	52	4.07	+ 1.11	1.50	2.0	8	11	4	16	w.	John A. Ewart.	
Bens Run.....	Pleasant.....	622	10	39.0	+ 6.8	69	10	11	29	34	3.91	.....	0.94	2.0	13	16	4	11	.....	J. D. Riggs.
Bluffield.....	Mercer.....	2,563	17	41.3	+ 7.1	65	8†	11	5	42	2.71	- 0.23	0.80	T.	12	9	9	13	.....	Norfolk & Western Ry.
Buckhannon.....	Upshur.....	1,472	20	38.4	+ 5.9	67	10	9	29	38	4.12	+ 0.14	0.76	1.0	15	8	7	16	.....	H. A. Darnall.
Cairo.....	Ritchie.....	667	10	42.6	+ 8.6	70	11	16	5	32	2.25	.....	0.20	.....	11	1	6	24	w.	Van A. Zevely.
Central Station.....	Doddridge.....	900	11	37.4*	+ 5.2	70	10	7	29	41°	1.79	- 1.43	0.54	.....	11	4	1	16	w.	G. W. Sherwood.
Charleston.....	Kanawha.....	598	24	45.1	.....	74	10	18	29	37	3.13	.....	0.70	T.	11	11	4	16	w.	R. C. Hewes.
Craston.....	Wirt.....	612	11	40.0	+ 7.0	63	10	12	29	33	4.52	+ 1.49	1.36	0.5	12	7	2	22	w.	J. M. Reed.	
Cuba.....	Jackson.....	544	10	41.1	+ 7.4	72	10	13	29	48	4.10	+ 1.04	1.15	T.	15	7	10	14	w.	C. T. Perry.	
Elkhorn.....	McDowell.....	1,933	19	42.8	+ 5.9	68	12	15	29	40	2.47	- 0.64	1.10	0.5	7	17	0	14	w.	J. J. Lincoln.	
Elkins.....	Randolph.....	1,940	13	38.3	+ 5.8	65	10	7	29	40	3.30	- 0.12	0.72	2.3	16	7	2	22	w.	U. S. Weather Bureau.	
Fairmont.....	Marlon.....	879	18	38.8	.....	70	10	13	29	38	2.15	- 1.20	0.60	0.5	10	4	17	s.	F. P. Hall.	
Glenville.....	Gilmour.....	738	22	41.0	+ 6.6	69	10	13	29	40	3.28	- 0.38	0.70	0.5	11	4	5	22	w.	John Holt.	
Grafton.....	Taylor.....	985	18	41.7	+ 8.3	71	10	12	29	41	3.70	+ 0.28	0.68	T.	15	9	5	17	w.	Joseph Gerken.	
Green Sulphur Springs.....	Summers.....	1,600	16	38.6	+ 5.0	65	12	10	5	40	2.26	- 0.18	0.80	1.0	12	9	4	18	w.	Arthur George.	
Hinton.....	do.....	1,400	21	39.1	+ 3.4	69	12	15	29†	41	2.62	- 0.10	0.84	T.	11	11	2	18	sw.	J. B. Lavender, C. E.	
Huntington.....	Cabell.....	510	17	40.5	+ 6.8	68	10	18	29	35	4.10	+ 0.97	1.00	T.	14	7	3	21	w.	L. H. Hutchinson.	
Lewisburg.....	Greenbrier.....	2,000	11	37.8	+ 6.0	63	12	11	29	35	2.15	- 0.68	0.73	T.	8	16	2	13	nw.	Geo. T. Argabrite.	
Logan.....	Logan.....	665	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. A. Deem.
Lost Creek.....	Harrison.....	1,033	15	38.0	+ 5.2	69	10	9	29	42	3.27	- 0.17	0.76	0.5	11	7	3	21	w.	Allen Smith.	
Madison.....	Boone.....	704	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. E. Bradley.
Mannington.....	Marion.....	967	10	38.9	.....	70	10	10	29	40	4.09	+ 0.81	0.74	5.4	19	8	1	22	sw.	Jas. A. Morgan.
Marlinton.....	Pocahontas.....	2,169	17	37.2	+ 7.8	61	12	9	5	42	3.55	+ 0.45	0.87	1.5	11	15	6	10	.....	C. J. McCarty.
Morgantown.....	Monongalia.....	1,250	36	40.4	+ 6.7	69	10	13	29	34	3.40	+ 0.88	0.90	3.0	11	6	14	11	s.	Horace Atwood.	
New Cumberland.....	Marshall.....	640	10	39.0	+ 5.6	72	10	12	29	39	3.61	+ 0.52	0.72	T.	16	7	1	23	sw.	M. L. Brown.	
New Martinsville.....	Hancock.....	987	14	37.0	+ 6.7	65	10	10	4	44	3.56	+ 1.20	0.60	5.0	14	6	1	24	sw.	Frank S. Evans.	
Nuttallburg.....	Wetzel.....	634	18	40.2	+ 5.8	71	10	15	29	38	3.86	+ 0.48	0.71	T.	15	12	6	13	s.	Wm. Ankron.	
Parkersburg.....	Fayette.....	2,252	18	40.3	+ 5.2	70	10	18	29	32	3.25	+ 0.48	0.70	0.2	16	7	3	21	se.	Miss Donna Tully.	
Wood.....	Wood.....	638	24	40.3	+ 5.2	70	10	18	29	32	3.25	+ 0.48	0.70	0.2	16	7	3	21	se.	U. S. Weather Bureau.	
Parsons.....	Tucker.....	1,662	12	38.4	+ 7.8	68	10	6	29	42	3.25	- 0.75	1.85	3.0	3	7	6	18	.....	J. W. Swisher.
Philippi.....	Barbour.....	1,192	18	40.2	+ 7.7	71	11	11	29	40	2.68	- 1.08	0.74	2.8	20	5	9	17	nw.	J. D. Dadisman.	
Pickens.....	Randolph.....	2,785	20	38.6	+ 5.9																

TABLE 1.—Climatological data for December, 1911. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.				Precipitation, in inches.				Number of rainy days 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direc- tion.	Observers.			
				Mean.	Departure from the normal.	Highest. Date.	Lowest. Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.									
Ohio—Continued.																				
Camp Dennison.	Hamilton.	570	18	38.7	+ 5.3	65	10†	14	29	33	4.00	+ 1.20	0.81	T.	16	6	11	14	se.	
Canal Dover.	Tuscarawas.	884	18	35.2	+ 5.0	61	10	12	24	35	4.71	+ 1.62	0.84	8.0	16	6	8	17	Ed S. Slingluff.	
Canton.	Stark.	1,089	23	38.4	+ 7.4	64	10	11	4	30	4.22	+ 1.46	0.76	11.8	17	10	1	20	Carl H. Meyer.	
Cardington.	Morow.	1,010	16	35.2	+ 6.0	60	10†	8	4	23	4.48	+ 2.04	1.18	7.9	11	8	0	23	J. W. Shaw.	
Chillicothe.	Ross.	630	8							3.99		0.79		9					Marion Mackey.	
Cincinnati.	Hamilton.	628	40	40.6	+ 4.2	65	10	16	28	30	3.46	+ 0.53	0.93	0.2	16	5	4	4	se.	
Orcleville.	Pickaway.	694	23	39.2	+ 6.5	65	10†	11	4	33	4.63	+ 2.23	1.09	1.0	14	7	7	17	U. S. Weather Bureau.	
Clarington.	Monroe.	600	8	37.8		69	10†	12	29	39	4.54		0.90	1.8	18	5	2	24	Col. S. Tschappat.	
Columbus.	Franklin.	918	33	37.4	+ 4.6	62	10	12	4	31	4.53	+ 1.77	1.23	4.4	18	6	4	21	U. S. Weather Bureau.	
Coshocton.	Coshocton.	770	2							5.56		0.80		20					Mrs. Ada Jeffries.	
Dayton (1).	Montgomery.	899	37.8			63	10	14	28	30	3.13		0.94	0.4	16	6	4	21	U. S. Weather Bureau.	
Dayton (2).	do.	790	30	37.4	+ 4.3	63	10	13	4	31	3.47	+ 0.83	0.82	T.	15				Mrs. Edith L. Boyer.	
Delaware.	Delaware.	896	14	34.2	+ 4.5	58	10†	9	4	29	5.29	+ 2.91	0.65	5.2	16	11	0	20	De Witt H. Leas.	
Demos.	Baldwin.	1,325	23	37.3	+ 4.9	64	10	13	4	28	4.92	+ 2.06	0.70	7.8	17	8	5	18	J. T. Dysart.	
Dennison.	Tuscarawas.	846	1	36.6		64	10	4	4	47	4.32		0.69	5.5	15	4	15	Water Supply Co.		
Frankfort.	Ross.	745	19	39.2	+ 5.8	66	11	14	29	32	5.31	+ 2.65	1.40	T.	13	8	2	21	O. A. Cory.	
Garretttsville.	Portage.	1,003	27	34.2	+ 5.0	60	10	-1	4	39	3.90	+ 0.97	0.67	7.7	19	4	3	24	S. M. Luther.	
Granville.	Licking.	960	29	35.8	+ 4.4	62	10	6	5	36	5.06	+ 1.92	0.60	6.79	15	5	1	25	Dr. L. E. Davis.	
Gratiot.	do.	1,000	22	36.2	+ 4.1	60	10	5	5	33	4.75	+ 1.72	1.20	6.1	16	2	8	21	W. B. Longstreth.	
Green.	Adams.	500	18	40.7	+ 5.5	74	12	16	4	36	5.04	+ 1.82	1.23	T.	9	8	5	18	W. F. Kenyon.	
Green Hill.	Columbiana.	1,135	17	34.6	+ 5.7	61	10	1	4	37	4.12	+ 1.49	0.89	8.6	17	9	4	18	Jos. E. Bentley.	
Greenville.	Derke.	1,060	25	36.2	+ 5.1	59	8†	9	3	31	3.41	+ 0.95	0.60	2.5	16	5	7	19	Geo. A. Katzenberger.	
Hamilton.	Butler.	601																Earl W. Stout.		
Haydenville.	Hocking.	700	32	38.9*		65†	10†	12*	4†	30	4.13		0.79	0.8	17	12	1	18	H. W. Stiers.	
Hillsboro.	Highland.	1,063	32	38.8	+ 5.2	66	10	14	4†	25	6.54	+ 3.36	1.36	3.3	13	7	6	18	Carey H. Roush.	
Ironton.	Lawrence.	575	28	42.0	+ 6.7	79	9	14	5	47	5.34	+ 2.51	1.10	0	16	8	8	18	James Bull.	
Jacksonburg.	Butler.	975	43	37.1	+ 5.4	61	10	10	28	28	3.80	+ 0.88	1.21	2.0	9	8	4	19	Dr. J. B. Owlesley.	
Kenton.	Hardin.	1,015	19	33.8	+ 2.1	59	10†	-1	4	32	4.35	+ 1.02	0.77	9.0	14	2	2	21	N. S. Martin.	
Killbuck.	Holmes.	1,087	19	33.4	+ 3.9	60	10	9	5	31	5.25	+ 2.46	0.85	10.2	17	8	8	15	Lloyd C. Schonauer.	
Lancaster.	Fairfield.	898	16	39.2	+ 6.9	63	10†	11	4	30	4.40	+ 1.25	0.87	5.0	15	8	2	21	R. L. Renshaw.	
McConnellsville.	Morgan.	710	27	38.2	+ 5.2	66	10	11	4	33	4.31	+ 1.37	0.86	4.0	15	5	7	19	C. H. Morris.	
Marietta.	Washington.	627	91	41.2	+ 6.9	66	10	16	29	33	3.01	+ 0.42	0.42	T.	15	5	2	24	Prof. T. D. Biscoe.	
Marion.	Marion.	980	33	35.6	+ 4.7	59	10	10	28	28	5.39	+ 2.76	0.86	13.0	17	3	8	20	Dr. E. H. Raffensperger.	
Millerton.	Knox.	1,200	19	34.3	+ 5.6	59	11†	9	4	41	3.6	+ 2.15	0.93	11.0	15	5	1	17	L. H. Burgess.	
Millport.	Perry.	875	18	37.0	+ 5.1	65	10	3	4	42	4.86	+ 1.92	0.79	4.5	16	6	8	17	V. C. Eveland.	
Nellie.	Columbiana.	1,145	18	34.4	+ 5.7	62	10	3	4	38	3.85	+ 1.06	0.90	8.5	18	4	6	21	G. F. Copeland.	
New Alexandria.	Cochetown.	850	11	36.6	+ 7.1	62*	10	0*	5	43	5.10	+ 2.27	0.97	9.0	14	6	11	14	Ethel L. Gammertsfelder.	
New Berlin.	Jefferson.	1,050	26	38.2	+ 5.7	66	10	7	29	32	3.45	+ 0.13	1.00	6.0	7	7	3	21	Mrs. Mary K. Pennell.	
New Waterford.	Stark.	1,100	18	33.0	+ 3.8	60	11	5	4	28	3.82	+ 1.29	0.70	11.0	17	9	0	22	Clayton Holl.	
Ohio State University.	Columbiana.	1,053	16	34.8	+ 5.0	60	10	4	4	36	4.66	+ 1.19	1.00	10.0	8	10	6	15	Sam C. Scott.	
Pataskala.	Franklin.	757	28	37.0	+ 5.4	62	10	10	4	33	4.58	+ 2.01	0.96	14	5	2	24	Prof. H. C. Lord.		
Peebles.	Adams.	645	1	39.5		76	9	10	29	44	4.47		1.00	T.	13	1	16	J. N. Ridenour.		
Philo.	Muskingum.	1,018	16	37.4	+ 6.0	64	11	12	4	31	4.35	+ 1.93	0.67	3.8	16	4	5	22	Ora O. Smalley.	
Piqua.	Miami.	847	1							5.32		0.82		7.8	14	8	2	21	Harry L. Roberts.	
Plattsburg.	Clark.	1,130	18	36.2	+ 5.4	61	10	5	4	29	4.01	+ 1.18	0.65	6.5	15	7	4	20	F. E. Stewart.	
Portsmouth.	Scioto.	527	80	41.0	+ 4.2	68	10	18	29	31	5.05	+ 1.70	0.93	0	14	4	3	24	Dr. H. A. Schirrmann.	
Prospect.	Rittman.	909	1							3.80		0.85		4.0	9				Neil J. Gast.	
Rittman.	Wayne.	990	19	35.0	+ 5.7	60	10	5	4	30	3.80	+ 1.23	0.90	9.5	16	6	4	21	J. B. Gish.	
Shenandoah.	Richland.	1,100	19	34.5	+ 5.7	60	10	8	4	32	3.94	+ 1.49	0.76	10.7	15	4	8	19	T. B. Arnett.	
Sidney.	Shelby.	985	28	36.2	+ 5.1	65	10†	5	4	28	4.20	+ 0.71	0.57	7.5	17	6	2	23	Hamline B. Blake.	
Somerset.	Perry.	1,080	12	36.0	+ 5.4	62	10	7	5	35	5.19	+ 1.19	1.02	6.5	18	5	9	17	Miss M. W. C. Sheridan.	
Springfield.	Clark.	980	17										1.00	0.80	6.0	13	5	9	14	W. A. Webster.
Summerfield.	Noble.	1,187	5	37.5		67	10	7	4	34	4.94		0.62	5.5	18	5	12	14	H. R. McClintonck.	
Syracuse.	Meigs.	583	1																E. G. Campbell.	
Thurman.	Gallia.	696	18	42.6	+ 7.5	68	9†	21	4†	32	3.91	+ 1.09	0.70	11	5	5	21	D. D. Thomas.		
Urbana.	Champaign.	1,031	43	36.0	+ 6.4	60	10	3	4	32	3.30	+ 0.27	0.59	7.8	14	5	10	16	Prof. J. H. Williams.	
Warren.	Trumbull.	900	22	35.9	+ 6.1	61	10	11	4	31	3.69	+ 0.61	0.76	8.6	17	6	4	21	M. D. McCorkle.	
Waverly.	Pike.	590	28	39.2	+ 5.0	66	10	11	28	37	4.05	+ 1.09	0.80	8.0	17	8	2	21	Dr. Peru Hutt.	
Waynesville.	Warren.	700	26	37.4	+ 6.4	63	10	13	28	29	4.24	+ 1.52	0.73	1.5	14	6	5	20	Chas. Michener.	
Wooster.	Wayne.	1,030	32	34.7	+ 3.9	61	10	7	5	33	4.54	+ 1.88	0.80	13.0	18	8	4	24	Experiment Station.	
Youngstown.	Mahoning.	846	18							3.98	+ 1.66	0.66	0.68	10.0	15	14	0	17	G. R. Patton.	
Zanesville.	Muskingum.	700	24							4.63	+ 1.95	0.88	3.0	16	7	1	13	S. G. Sprague.		
Indiana.																				
Anderson.	Madison.	892	16	36.9	+ 7.1	60	10	9	4	33	2.14	- 0.54	0.71	3.7	11	7	6	18	W. H. Stanton.	
Attica.	Fountain.	522	1							1.86		0.41	0.5	11					Robt. E. Ray.	
Bloomington.	Monroe.	744	16	36.2	+ 4.1	63	8	12	28	33	4.33	+ 0.77	1.30	0.4	14	7	3	21	Earl E. Ramsey.	
Bluffton.	Wells.	835	16	34.7	+ 6.5	60	10	-2	4	32	3.22	+ 0.76	0.69	5.1	14	11	14	Tom R. Johnston.		
Butlerville.																				

TABLE 1.—Climatological data for December, 1911. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.	Number of rainy days 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
<i>Indiana—Continued.</i>																			
Monticello.	White.	674	1	38.1	+ 6.3	63	9	12	28	30	3.71	+ 0.63	0.45	2.4	8	11*	s.	J. E. Loughry.	
Moores Hill.	Dearborn.	980	10	39.1	+ 3.5	65	9	17	28	29	3.37	+ 0.10	0.74	3.8	17	6	5	nw.	W. S. Bigney.
Mount Vernon.	Posey.	410	25	39.1	+ 3.5	65	9	17	28	29	3.37	+ 0.10	1.02	0	10	10	7	n.	Guy B. Green.
Paoli.	Orange.	611	14	39.7	+ 7.0	67	9	14	28	38	2.95	- 0.72	0.59	T.	13	8	8	sw.	James A. Gillum.
Princeton.	Gibson.	481	29	40.3	+ 5.4	64	10	15	28	28	2.98	- 0.03	1.10	T.	9	13	2	sw.	Albert Mills.
Richmond.	Wayne.	972	26	36.0	+ 5.6	61	10	10	4	32	3.07	+ 0.40	0.71	1.5	15	4	8	19.	Walter Vossler.
Rochester.	Fulton.	775	6	34.0	.....	56	10†	6	4	26	1.77	.....	0.51	6.0	7	6	4	21.	G. P. Keith.
Rockville.	Parke.	722	25	41.8	.....	69	8	12	28	38	4.24	.....	0.87	T.	15	7	4	20.	H. B. Bruback.
Rome.	Perry.	370	8	33.4 ^a m	.....	48 ^a	26†	9	28	20 ^a	4.24	.....	0.88	T.	15	5	7	19.	Adam Anspach.
Salamonia.	Jay.	717	18	39.0	+ 6.2	67	9	14	28	33	4.47	+ 0.98	0.88	T.	15	5	7	19.	S. A. Armstrong.
Salem.	Washington.	570	17	40.0	+ 5.9	65	9	13	28	34	3.52	+ 0.43	1.11	0.5	10	6	10*	14*	Emmet S. Allen.
Scottsburg.	Scott.	610	24	37.4	.....	60	10†	12	28†	27	3.52	.....	1.02	1.2	16	5	9	17.	Frank H. Park.
Seymour.	Jackson.	612	13	36.6	+ 6.6	59	10	9	28	26	1.67	- 0.32	0.37	T.	13	10	7	14.	J. Robt. Blair.
Shelbyville.	Shelby.	768	7	37.4	.....	61	10†	18	28	24	7.80	+ 4.78	1.30	0.5	10	4	11	16.	Edgar G. Hodson.
Shoals.	Martin.	523	4	37.7	+ 4.1	60	10	10	28	20	3.13	+ 0.55	0.68	0	11	13	7	11.	Rev. G. Halleck Rowe.
Terre Haute.	Vigo.	498	21	36.6	+ 4.0	59	10	10	28	20	3.13	+ 0.55	0.68	0	11	13	7	11.	Prof. R. G. Gillum.
Veedersburg.	Fountain.	612	12	36.6	+ 6.6	59	10	9	28	26	1.67	- 0.32	0.37	T.	13	10	7	14.	L. A. Culver, Jr.
Vevay.	Switzerland.	525	30	42.8	+ 6.9	68	10	18	28	24	7.80	+ 4.78	1.30	0.5	10	4	11	16.	Miss Frederica Boerner.
Vincennes.	Knox.	431	19	36.9	+ 4.1	61	10†	12	28	29	3.35	+ 0.09	1.10	T.	9	9	1	21.	Garrett V. List.
Washington.	Daviess.	484	15	39.2	+ 6.5	61	10†	14	28	23	2.98	- 0.31	0.97	0	12	7	1	23.	Charles C. Feagans.
Whitestown.	Boone.	529	3	34.2	.....	59	10	10	4†	31	2.84	.....	0.63	1.6	14	5	13	13.	Clyde O. Laughner.
Winona Lake.	Kosciusko.	865	4	34.6	.....	57	10†	1	4	34	2.07	.....	0.42	7.9	11	4	13	nw.	Rev. Albert A. Young.
Worthington.	Greene.	526	29	38.2	+ 5.3	61	10	12	28	29	3.20	0.00	1.14	T.	11	8	7	16.	D. W. Solliday.
<i>Illinois.</i>																			
Albion.	Edwards.	531	20	38.4	+ 4.6	64	9	13	28	25 ^a	2.30	- 0.89	0.45	0	9	12	3	16.	B. F. Michels.
Carini.	White.	399	.....	37.8*	+ 5.4	60	10	18	28	27	2.88	- 0.59	0.62	T.	7	8	12	11.	Daniel Berry.
Casey.	Clark.	645	26	36.3	+ 4.0	59	10	10	28	27	1.77	- 0.59	0.39	T.	10	6	8	17.	William Chenoweth.
Charleston.	Coles.	720	26	36.3	+ 4.6	60	10	9	28	27	1.76	- 0.44	0.48	0.2	8	2	21	s.	Jacob B. Daisy.
Danville.	Vermillion.	604	10	36.2	+ 6.8	60	10	9	28	27	1.76	- 0.44	0.48	0.2	8	2	21	s.	J. J. Lemon.
Equality.	Gallatin.	421	13	41.8	+ 5.3	66	9	17	28	26	3.61	+ 0.12	1.07	T.	8	12	3	16.	Dr. L. W. Gordon.
Fairfield.	Wayne.	495	18	39.4	+ 5.3	64	9	14	28	28	2.91	+ 0.10	0.46	T.	10	10	1	20.	George A. Tromley.
Flora.	Clay.	495	25	37.6	+ 3.7	59	10	15	28	25	1.87	- 0.87	0.39	T.	8	13	2	18.	Joseph S. Peak.
Golconda.	Pope.	500	33	41.6 ^a	+ 4.5	64 ^a	9	18 ^b	25	23 ^a	4.30	+ 0.71	1.48	T.	9	12	3	16.	Dr. D. Lawrence.
Hoopston.	Vermilion.	715	9	34.4	+ 6.1	59	10	7	28	27	1.71	- 0.72	0.34	3.3	13	8	7	16.	S. F. Hoskinson.
McLeansboro.	Hamilton.	462	28	39.1	+ 3.4	64	9	15	28	26	2.48	- 0.52	0.65	0	9	9	8	14.	Prof. W. C. Fairweather.
Metropolis.	Massac.	346	.....	41.3	+ 5.6	60	10	18	28	27	3.45	.....	1.16	T.	6	8	17.	Lloyd Kimball.	
Montrose.	Efingham.	599	11	37.8*	+ 5.4	60	10	18	28	27	2.12	- 0.31	0.49	0	8	.....	sw.	J. C. Spitler.	
Mount Carmel.	Wabash.	424	10	38.2	+ 4.8	62	9	16	28	23	2.86	- 0.47	1.22	T.	13	10	5	15.	Mrs. H. M. Phillips.
New Burnside.	Johnson.	556	16	40.2	+ 4.3	62	9	13	28	30	2.38	- 0.82	0.80	T.	8	15	12	4.	Thomas H. McCabe.
Newton.	Jasper.	484	24	39.6	+ 4.6	61	9	1	28	27	2.7	- 0.71	0.41	1.5	7	4	16	s.	J. M. Hicks.
Odney.	Richland.	486	24	39.6	+ 4.6	61	10	14	28	25	2.62	- 0.14	0.81	T.	9	6	9	16.	Victor E. Phillips.
Palestine.	Crawford.	500	29	38.2	+ 5.2	60	10	13	28	26	2.94	+ 0.05	0.51	0	11	7	7	17.	Diane Shaw.
Paris.	Edgar.	600	18	35.0	+ 5.9	60	10	9	28	25	1.90	- 0.45	0.70	0	7	10	5	15.	H. P. Tuwayman.
Philo.	Champaign.	700	27	34.0	+ 4.2	60	10	9	28	23	1.56	- 0.64	0.38	0.7	8	8	12	11.	H. A. Burr.
Rantoul.	do.	768	20	34.6	+ 5.4	61	10	7	28	27	1.73	- 0.36	0.42	2.0	10	12	4	15.	William Breiner.
Rileyville.	Saline.	400	.....	41.3	.....	60	10	15	28	25	2.10	.....	0.90	0	7	10	2	19.	W. H. Thornberry.
Robinson.	Crawford.	500	11	38.2	.....	61	10	15	28	25	2.10	.....	0.60	0	9	14	4	13.	O. A. Fyffe.
Sumner.	Lawrence.	459	5	38.2	.....	61	10	15	28	25	2.10	.....	0.60	1.5	7	7	17.	E. W. Lester.	
Tuscola.	Douglas.	644	18	36.4	+ 6.5	62	10	8	28	29 ^a	1.35	- 0.71	0.41	1.5	7	4	16	s.	Prof. J. G. Mosier.
Urbana.	Champaign.	725	10	33.4	.....	61	10	8	28	23	1.35	- 0.71	0.41	1.5	7	4	16	s.	.....
<i>Kentucky.</i>																			
Alpha.	Clinton.	17	46.7	+ 6.4	70	9	22	5	37	8.17	+ 3.46	2.40	T.	9	10	2	19.	W. W. Hicks.	
Anchorage.	Jefferson.	700	10	39.2	+ 6.4	66	8†	15	4†	35	4.69	+ 0.89	1.13	T.	9	12	4	15.	C. E. Barrett.
Bardstown.	Nelson.	637	14	42.4	+ 6.2	69	10	28	35	8.22	+ 4.11	1.68	13	9	1	21.	G. M. Talbott.		
Beattyville.	Lee.	650	7	39.4	.....	74	10	11	4†	52	6.14	+ 1.88	1.28	4.0	16	8	7	16.	G. W. Cann.
Beaver Dam.	Ohio.	441	8	41.7	.....	70	9	19	28	38	5.80	.....	1.33	12	8	7	16.	W. T. Austin.	
Berea.	Madison.	1,070	10	48.2	+ 7.3	71	10	18	28	31	5.45	+ 1.45	1.63	0.4	12	11	5	15.	C. F. Romold.
Blandville.	Ballard.	445	30	42.2	+ 5.4	65	10	17	28	27	4.33	+ 0.38	1.49	T.	11	4	8	19.	E. W. Horr.
Bowling Green.	Warren.	500	22	43.0	+ 4.7	69	7†	17	28	39	10.22	+ 6.05	2.20	T.	14	13	1	17.	Mrs. L. G. Causey.
Burnside.	Pulaski.	773	20	42.8	.....	69	8	18	28	30	4.48	.....	1.10	T.	15	5	16	s.	G. M. Estes.
Calhoun.	McLean.	597	22	41.3	+ 3.8	70	9†	18	28	33	5.41	+ 2.05	1.20	T.	14	8	3	20.	W. A. Taylor.
Catlettsburg.	Bovd.	544	22	41.0	+ 1.8	70	8	15	28	37	4.33	+ 0.47	1.17	9	11	1	19.	Mrs. Mertie M. Bruns.	
Earlington.	Hopkins.	370	21	41.0	+ 6.2	67	8	17	28	30	5.17	+ 1.48	2.15	T.	15	8	6	17.	Brick Southworth.
Edmonton.	Metcalfe.	600	20	43.0	+ 5.4	70	11	18	28	37	8.94	+ 4.67	2.10	T.	15	8	6	20.	Miss Lee Ray.
Eubank.	Pulaski.	1,177	17	42.2	+ 6.5	68	10	19	1†	39	6.87	+ 3.75	1.40	T.	15	8	3	2	

TABLE 1.—*Climatological data for December, 1911. District No. 3—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmetted.								
<i>Tennessee.</i>																						
Ashwood.....	Maury.....	725	33	45.6	+ 4.6	70	8	20	5 ^t	36	10.09	+ 6.13	2.25	T.	13	9	4	18	s.	Mrs. Joseph W. Fleming.		
Benton.....	Polk.....	880	92	46.4	+ 4.9	75	10	18	1	41	6.57	+ 2.35	1.43	T.	15	9	7	15	s.	George L. Williams.		
Bird's Bridge.....	Greene.....	5	—	—	—	—	—	—	—	—	2.80	—	0.80	T.	11	11	2	18	e.	David B. George.		
Bluff City.....	Sullivan.....	14	—	—	—	—	—	—	—	—	3.34	+ 0.17	0.91	T.	11	12	0	19	e.	John W. Fisher.		
Byrdstown.....	Pickett.....	1,026	18	45.4	+ 6.6	71	11	20	18 ^t	31	8.10	+ 3.88	2.64	T.	10	7	6	18	s.	John Lacy.		
Carthage.....	Smith.....	500	27	46.1	+ 6.4	72	8	20	28	41	8.49	+ 4.60	1.03	T.	16	11	0	20	nw.	Earl C. Pickering.		
Cedar Hill.....	Robertson.....	625	11	43.6	+ 4.1	68	8	17	28	31	10.79	—	2.00	T.	13	10	7	14	n.	J. Frank Ruffin.		
Celina.....	Clay.....	494	8	—	—	—	—	—	—	—	9.83	—	2.51	T.	14	9	3	19	s.	Stephen B. Anderson.		
Center Point.....	Chester.....	400	14	—	—	—	—	—	—	—	12.69	+ 7.69	3.60	T.	14	10	0	21	s.	Halbert H. Bailey.		
Charleston.....	Bradley.....	709	14	—	—	—	—	—	—	—	7.86	+ 3.54	0.95	T.	15	11	0	20	n.	John T. Weeks.		
Chattanooga.....	Hamilton.....	808	32	46.5	+ 3.9	69	10	25	1	28	8.67	+ 4.31	2.18	T.	13	8	6	17	s.	U. S. Weather Bureau.		
Clarksville.....	Montgomery.....	500	48	44.3	+ 4.9	70	8	20	28	36	10.53	+ 6.10	2.48	T.	14	11	4	16	sw.	Prof. James A. Lyon.		
Clinton.....	Anderson.....	800	23	—	—	—	—	—	—	—	6.35	+ 1.89	1.40	T.	13	11	1	19	w.	Hugh Evans.		
Dandridge.....	Jefferson.....	7	—	—	—	—	—	—	—	—	3.88	—	0.70	T.	11	13	1	17	w.	James E. Swann.		
Decatur.....	Meigs.....	850	15	44.4	+ 4.9	72	10	17	1	40	7.49	+ 2.15	1.02	T.	16	9	8	14	sw.	J. Worth Lillard.		
Dickson.....	Dickson.....	800	15	45.0	+ 6.8	70	8	15	23	35	12.99	+ 8.92	3.20	T.	11	10	3	18	s.	Nathan R. Sugg.		
Dover.....	Stewart.....	500	16	43.8	+ 4.6	71	8	18	28	38	10.41	+ 6.01	1.77	T.	9	9	5	17	s.	Asa M. Tippit.		
Dunlap.....	Sequatchee.....	726	2	46.3	—	71	10	18	1	42	7.74	—	1.76	T.	15	9	9	13	—	S. Bradford Boyd.		
Elizabethhton.....	Carter.....	1,575	21	—	—	—	—	—	—	—	2.05	+ 1.16	0.65	T.	5	14	2	15	e.	Charles Boyd.		
Erasmus.....	Cumberland.....	1,850	14	42.4	+ 6.9	66	8	12	1 ^t	45	9.12	+ 3.75	1.65	T.	15	9	9	13	se.	Mrs. Sara E. Ashley.		
Florence.....	Rutherford.....	580	29	46.0	+ 5.4	70	10 ^t	20	5	36	9.65	+ 5.76	1.72	T.	10	10	2	19	s.	Erastus P. Bell.		
Franklin.....	Williamson.....	648	21	45.1	+ 5.4	66	10	20	28	30	13.02	+ 8.44	4.01	T.	10	10	1	20	s.	Young M. Rizer.		
Hall's Hill.....	Rutherford.....	9	—	—	—	—	—	—	—	—	8.56	—	2.15	T.	15	10	1	20	s.	Ed. F. Wright.		
Harriman.....	Roane.....	841	16	44.4	+ 5.9	70	10	20	5 ^t	34	7.64	+ 3.13	1.93	T.	11	9	8	14	—	Robert R. Ayres.		
Hohenwald.....	Lewis.....	983	25	45.2	+ 5.7	69	8	17	28	35	15.73	+ 10.14	3.77	T.	0	15	8	17	se.	John Lutzelman.		
Iron City.....	Lawrence.....	600	14	45.0	+ 4.9	68	8 ^t	15	1	40	10.41	+ 4.85	2.10	T.	0	15	2	17	s.	Capt. H. Paul Seavy.		
Jefferson City.....	Jefferson.....	1	—	—	—	—	—	—	—	—	3.74	—	0.80	T.	0	13	—	—	—	Calvin C. Maddox.		
Johnson City.....	Washington.....	1,620	—	42.7	+ 5.2	69	26	17	29	33	2.79	+ 0.69	0.75	T.	10	9	9	13	w.	Ward Crosby.		
Johnsonville.....	Humphreys.....	304	15	44.6	+ 5.2	70	8	17	5	40	10.36	+ 6.16	2.46	T.	0	14	6	4	21	s.	Miss Sallie B. Matthews.	
Kingston.....	Roane.....	20	—	—	—	—	—	—	—	—	7.17	+ 3.17	1.41	T.	0	14	11	0	20	n.	Henry Crumbliss.	
Knoxville.....	Knox.....	977	40	44.9	+ 5.2	71	10	23	29	30	4.84	+ 0.68	1.26	T.	13	6	7	18	ne.	U. S. Weather Bureau.		
Lebanon.....	Wilson.....	522	2	45.6	—	69	8 ^t	17	28	35	9.87	—	3.17	T.	7	5	19	19	s.	H. Logan Fields.		
Lewisburg.....	Marshall.....	727	16	46.0	+ 5.3	71	8	17	5	41	10.11	+ 5.79	1.90	T.	18	9	6	16	se.	Dr. Robert D. Crutcher.		
Loudon.....	Loudon.....	816	8	—	—	—	—	—	—	—	6.05	—	1.15	T.	13	12	1	18	w.	Robert W. Clark.		
Lynville.....	Giles.....	770	23	46.3	+ 5.2	67	26	20	28	32	11.39	+ 6.89	2.54	T.	13	10	8	13	s.	Col. James H. Burrow.		
McGhee.....	Monroe.....	7	—	—	—	—	—	—	—	—	5.65	—	0.90	T.	12	12	0	19	e.	Miss Alice L. Headrick.		
McMinnville.....	Warren.....	1,011	27	46.2	+ 5.7	71	10	19	28	38	8.80	+ 4.41	1.51	T.	0	16	8	15	se.	J. Tilden Sparkman.		
Maryville.....	Blount.....	1,050	15	44.8	+ 5.2	68	10 ^t	22	6	37	3.83	+ 1.07	0.73	T.	9	7	5	15	e.	Mrs. Sam T. Broyles.		
Mountain City.....	Johnson.....	2,486	14	41.6	+ 7.6	67	26	11	29	46	3.67	+ 0.15	0.80	T.	9	5	4	12	—	Edward E. Barry.		
Nashville.....	Davidson.....	654	40	45.4	+ 4.3	67	8	20	1 ^t	34	10.21	+ 7.19	4.10	T.	16	9	5	17	se.	U. S. Weather Bureau.		
Newport.....	Cooke.....	1,280	21	44.8	+ 6.9	69	10	20	1 ^t	34	3.51	+ 0.03	0.60	T.	14	10	0	21	w.	Dr. Charles T. Burnett.		
New River.....	Scott.....	1,215	4	40.0	+ 5.2	69	8	20	5 ^t	34	8.83	+ 4.36	8.43	T.	13	11	1	19	sw.	Burl W. Buttram.		
Pineywood.....	Bedford.....	770	18	40.0	+ 5.2	69	8	16	28	41 ^t	14.10	—	4.10	T.	15	8	7	16	se.	Mrs. Rose Woods.		
Pope.....	Hickman.....	4	44.8 ^e	—	—	—	—	—	—	—	—	—	—	T.	0	11	—	—	—	Miss Carrie Cash.		
Perry.....	Perry.....	400	14	—	—	—	—	—	—	—	—	—	—	T.	12	12	0	19	e.	Fred Beal.		
Rogersville.....	Hawkins.....	1,150	26	43.2	+ 5.5	68	8 ^t	17	1	44	4.04	+ 0.52	0.73	T.	13	10	5	16	e.	Samuel G. Wilson.		
Rugby.....	Morgan.....	1,410	23	43.0	+ 5.6	68	8 ^t	15	43	7.60	+ 3.24	2.01	T.	12	10	1	19	s.	W. H. Carrington.			
Savannah.....	Hardin.....	442	27	47.2 ^d	+ 5.3	68	8	22	28	30 ^b	16.30	+ 11.69	6.46	T.	0	13	11	1	19	—	Herbert O. Eckel.	
Sevierville.....	Sevier.....	5	—	43.3	—	73	10	14	29	42	4.17	+ 0.96	0.96	T.	13	5	4	16	s.	Arthur H. Noll.		
Sewanee.....	Franklin.....	2,000	15	44.0	+ 5.8	65	9 ^t	16	28	7.90	+ 3.15	—	—	T.	9	6	6	16	s.	Ernest H. Hull.		
Sparta.....	White.....	920	5	45.9	—	69	10	19	1	40	8.29	—	1.30	T.	13	11	8	12	s.	Hudnall A. Boden.		
Springville.....	Henry.....	377	8	42.8	—	69	8	16	5	40	10.45	—	2.06	T.	16	12	3	16	s.	J. Caloway Carr.		
Tazewell.....	Clairborne.....	14	40.7	+ 2.0	68	11	12	1	44	4.60	+ 0.11	1.07	T.	13	8	2	21	ne.	Reuben T. Moore.			
Tullahoma.....	Coffee.....	1,075	23	45.4	+ 5.8	69	10	20	5 ^t	34	10.45	+ 5.14	1.72	T.	15	7	9	15	s.	John K. Roberts.		
Walling.....	White.....	909	8	—	—	—	—	—	—	—	8.26	—	1.90	T.	15	8	2	21	sw.	Harry C. Boyd.		
Waynesboro.....	Wayne.....	753	25	44.7	+ 4.1	70	26	18	5 ^t	35	11.58	+ 7.27	2.50	T.	13	8	7	16	s.	William R. Wilson.		
Wildersville.....	Henderson.....	400	14	45.0	+ 5.0	68	8	19	28	36	12.76	+ 4.32	1.67	T.	10	7	7	17	n.	James G. Elizer.		
Worsham.....	Sumner.....	550	10	—	—	—	—	—	—	—	—	—	2.05	T.	10	13	1	17	e.	William P. Watson.		
Yukon.....	Lincoln.....	850	14	46.1	+ 5.5	69	11	19	28	36	11.12	+ 5.96	2.45	T.	13	10	6	15	se.			
<i>Georgia.</i>																						
Diamond.....	Gilmer.....	2,020	21	45.6	+ 4.6	67 ^a	11	15 ^a	1	38	4.00	+ 1.49	1.05	T.	12	10	7	14	—	R. A. Kimzey.		
Mineral Bluff.....	Fannin.....	1,571	—	44.6	—	67	8	12	1	45	4.82	—	1.40	T.	8	9	10	12	w.	J. M. Clement.		

TABLE 1.—*Climatological data for December, 1911. District No. 3—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.								Precipitation, in inches.								Sky.	Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.				
<i>Virginia.</i>																						
Big Stone Gap.....	Wise.....	1,540	20	42.6	+ 7.0	67	10	18	5†	35	4.65	+ 0.83	0.75	T.	12	10	1	20	w.	John W. Fox, sr.		
Blackburg.....	Montgomery.....	2,170	20	37.5	+ 3.4	65	12	10	23	40	3.07	+ 0.45	0.90	T.	9	10	7	14	w.	Agricultural Exp. Sta.		
Burke's Garden.....	Tazewell.....	3,250	16	36.0	+ 4.8	60	12	5	41	41	3.05	- 0.74	0.95	T.	10	8	4	19	w.	C. H. Grever.		
Elk Knob.....	Lee.....	3,243	8	42.5	.....	65	10	16	28	25	4.35	.....	0.90	T.	12	8	3	20	sw.	Henry Nicoll.
Ivanhoe.....	Wythe.....	2,028	7	37.9	.....	58	11†	12	29	32	2.79	.....	0.75	T.	12	9	14	8	w.	Miss Alize G. Jewett.
Lebanon.....	Russell.....	2,131	1	43.0	.....	68	10	12	29	45	4.56	.....	1.15	0.5	12	8	5	18	sw.	R. D. Swain.
Max Meadows.....	Wythe.....	2,028	15	37.6	+ 2.8	61	11	11	29	41	2.82	- 0.14	0.75	T.	8	12	6	13	sw.	James M. Graham.		
Mendota.....	Washington.....	1,350	2	3.55	0.90	Frank M. Barker.	
Mountain Lake.....	Giles.....	4,348	1	37.5	.....	56	13†	10	28	48	3.70	.....	1.20	.....	7	10	5	16	.....	H. E. Dorland.
Radford.....	Montgomery.....	1,773	2	3.38	1.80	0	6	Arthur Roberts.	
Speers Ferry.....	Scott.....	1,221	15	3.78	- 0.81	Mrs. L. E. Venable.	
Wytheville.....	Wythe.....	2,293	18	39.4	+ 4.1	63	6	15	29	39	2.49	- 1.25	0.79	T.	13	10	2	19	w.	U. S. Weather Bureau.		

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for December, 1911. District No. 3, Ohio Valley.*

Stations.	Watershed.	Day of month.																														Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>New York.</i>																																	
Allegany.....	Allegheny.....	.12	.18	.061012	.47	.46	.2439	.01	.0207	.380220	.03	.1507	.25	3.33	
Bolivar.....	do.....	.10	.30	T.	.....	.....	.....	.....	.....	.25	.55	.24	.23	T.	.....	.....	.....	.....	.....	T.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.45	2.72
Olean.....	do.....15	.1315	.7022	.07	.1305	.2835	2.51	
<i>Pennsylvania.</i>																																	
Aleppo.....	Ohio.....	.02	.02	.201005	.05	.15	.10	.35	.2515	.06	.19	.2140	.1565	3.10	
Baldwin.....	Allegheny.....	.10	.40	T.2015	.25	.60	.10	.2215	.10	.10	.10	T.	.25	T.	T.	T.	.60	3.32	
Beaver Dam II.	Ohio.....	.11	.05	.3505	.11	.04	.13	.6860	.16	.020105	.05	.1013	T.	.26	.03	T.	.68	3.61	
Brookville.....	Allegheny.....	.60	.....	.....	.....	.....	.....	.....	.....	T.	.13	T.	.05	.18	.....	.13	.45	.35	.....	T.	.23	.08	.28	.20	T.	.25	.25	.....	T.	.65	3.53
California.....	Monongahela.....	T.	.30	.....	.....	.....	.....	.....	.....	T.	.10	.....	.10	.64	.....	.52	.12	.10	.....	T.	.....	.20	.10	.10	.....	.08	.04	.....	T.	.65	2.93
Clarion II.	Allegheny.....	.25	.41	.22	.....	.....	.....	.....	.....	.09	T.	.02	.28	.26	.13	.56	.15	.....	T.	.....	.20	.02	.12	.20	.....	.21	.30	T.	T.	.65	3.64
Clayaville.....	Ohio.....	.10	.27	.08	.....	.....	.....	.....	.....	.....	T.	.10	.....	.26	.13	.56	.15	.....	T.	.....	.20	.02	.12	.20	.....	.21	.30	T.	T.	.65	2.80
Connieville II.	You'og'ny.....	.02	.53	T.	.....	.....	.....	.....	.....	.....	T.	.10	.....	.60	.70	.05	.....	.....	T.	.....	.04	.30	.13	T.	T.	.90	.04	T.	.77	4.20	
Davis Island Dam II.	Ohio.....	.06	.02	.44	.....	.....	.....	.....	.....	.08	T.	.10	.50	.68	.27	.03	T.	T.	.....	T.	.11	.10	.14	T.	.18	.....	.32	.01	T.	.73	4.07
Derry Station.....	Allegheny.....	.15	.25	.....	.....	.....	.....	.....	.....	.17	.....	.....	.32	.29	.73	.16	.....	.....	.....	.....	.12	.15	.35	.23	.....	.21	.22	.....	.....	.61	3.96
Franklin II.	do.....	.08	.16	.25	.....	.....	.....	.....	.....	.05	.10	.06	.22	.84	.02	.58	.03	.12	T.	.....	.04	.11	.34	.....	.10	.49	.18	.06	T.	.57	4.40
Freeport II.	do.....	.26	.01	.53	.....	.....	.....	.....	.....	.03	.15	T.	.27	.61	.....	.76	.28	.07	T.	.....	.20	.10	.16	T.	.....	.47	.01	T.	.76	4.67	
Greensburg.....	Monongahela.....	T.	.10	.20	.....	.....	.....	.....	.....	.10	.....	.02	.16	.36	.18	.48	.10	.....	.....	.....	.21	.28	.06	.31	.....	.81	.02	.....	T.	.58	3.68
Greenville.....	You'og'ny.....	.15	.47	.01	.....	.....	.....	.....	.....	T.	.07	.01	.05	.16	.18	.17	.57	.44	T.	T.	.17	.04	.58	.....	.20	.34	T.	T.	.67	4.28	
Grove City.....	Ohio.....	.20	.22	T.	T.	T.	.43	.61	.29	.35	T.	.34	T.	T.08	.44	T.	.10	T.	.44	.34	T.	.05	.60	4.49	
Herrs Island Dam II.	Allegheny.....	.11	.04	.31	T.	.....	.....	.....	.....	.01	.28	T.	.11	.38	.05	.34	T.	T.	.....	T.	.14	.06	.15	T.	.21	T.	.35	.01	T.	.69	3.82
Indiana.....	do.....	.20	.45	.....	.....	.....	.....	.....	.....	.15	.....	.20	.30	.35	.95	.60	.....	.....	.....	.....	.35	.20	.35	.15	.34	.....	.57	.....	.....	.83	5.99
Irwin.....	Monongahela.....	.08	.28	T.	.....	.....	.....	.....	.....	.17	.....	.11	.20	.19	.10	.64	.30	.....	.....	.....	.23	.22	T.	.44	T.	.41	T.	.....	.82	4.01	
Johnstown.....	Allegheny.....	.15	.50	.0201	.0104	.28	.22	.42	.36	.0217	.05	.20	.2228	.54	.0210	.60	4.13	
Lock No. 4 II.	Monongahela.....	T.	.03	T.02	.1010	.15	.49	.34	T.15	.07	.25	.04	.2145	.0360	3.23	
Lycipus.....	Allegheny.....	.09	.401212	.24	.35	.57	.4529	.04	.59	.1913	.40	.03	T.	.71	4.72	
Parkers Landing II.	do.....	.05	.05	.40	.....	.....	.....	.....	.....	.04	.34	.04	.64	.70	.62	.10	.....	T.	.....	.38	.22	.....	.....	.10	.....	.40	T.	.....	.70	.48	.....	
Pittsburgh.....	Ohio.....	.02	.08	.54	T.	.....	.....	.....	.....	.18	.....	.03	.30	.15	.41	.47	.01	T.	T.	.....	.21	.11	.01	.17	.....	.38	.03	.01	T.	.42	3.79
Saegerstown.....	Allegheny.....	.12	.15	.04	.....	.....	.....	.....	.....	.09	.....	.30	.62	.41	.07	.39	.....	T.	T.	.....	.10	.09	.34	.08	.04	.03	.13	.....	.10	.56	4.20
Saltsburg II.	do.....	.08	.06	.70	.....	.....	.....	.....	.....	T.	.18	.....	.18	.22	.60	.40	.10	.....	T.	.....	.06	.18	.32	.....	.20	.....	.54	.02	.....	.60	4.44
Skidmore.....	Ohio.....52502565	2.57	
Somerset.....	You'og'ny.....	.20	.25	.12	T.	.25	.22	.31214036	2.69	
Springdale II.	Allegheny.....	.13	.09	.40	.....	.....	.....	.....	.....	.10	.....	.25	.40	.73	.31	.....	.....	.....	.....	.....	.13	.10	.16	.....	.21	.....	.....	.....	.....	.69	4.21
Uniontown.....	Monongahela.....	.07	.30	.....	.....	.....	.....	.....	.....	.24	.....	.04	T.	.30	.44	.31	.....	.....	.....	.....	.36	.10	.40	T.	.1.01	.....	.....	.....	.....	.58	4.05
Warren.....	Allegheny.....	.10	.30	.....	.....	.....	.....	.....	.....	.15	.....	.45	.20	.10	.22	.31	.....	T.	T.	.....	.10	.24	.25	.35	.....	.....	.40	.....	.....	.40	2.96
West Newton II.	You'og'ny.....	.04	T.	.39	.....	.....	.....	.....	.....	.....	.....	.16	.....	.12	.13	.40	.42	.....	.....	.....	.....	.14	.14	.29	.01	.32	.....	.24	.....	.58	3.40
<i>Maryland.</i>																																	
Deer Park.....	You'og'ny.....	.10	.30	.....	.....	.....	.....	.....	T.	.....	T.	.....	.10	.72	.82	.....	.....	.....	.....	.....	.20	.10	.08	.20	.....	.54	T.	.10	.60	3.27	
Grantsville.....	do.....	.10	.30	.....	.....	.....	.....	.....	.....	T.	.....	.08	.02	.42	.50	.....	.....	.....	.....	.....	.30	.35	.50	.60	.26	.05	.....	.....	.01	.05	2.64
<i>West Virginia.</i>																																	
Bancroft II.	G. Kanawha.....	T.28	.12	.05	.35	.58	.0405	.40	.18	.06	.05	.70	*	*	*	.55	3.40	
Beckley.....	do.....	.....	.10	.....	.....	.....	.....	.....	.....	.....	.....	.05	.....	.20	.13	.45	.38	.16	.....	.....	.....	.1.50	.09	.18	.32	.63	.....	.94	3.91		
Bens Run.....	Ohio.....	.35	.03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.01	.05	.20	.....	.....	.01	.02	.80	.10	.25	.30	.27	.40	.....	.30	2.71
Bluefield.....	G. Kanawha.....	T.55	4.19	
Brandonsville II.	Monong'h'a.....45	4.12
Buckhannon.....	do.....	.....	.12	.01	.05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.10	.05	.43	.....	.....	.05	.20	.25	.25	.76	.10	.....</td				

TABLE 2.—*Daily precipitation for December, 1911. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for December, 1911. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for December, 1911. District No. 3—Continued.*

Stations.	Watershed.	Day of month.																														Total.								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
<i>Tennessee—Cont'd.</i>																																								
Center Point	Tennessee	.05	.20	.70	.30	.60	.25	.20	.05	.28											.31	.65	.95	.25	1.65	1.10		.75	.85	12.69										
Charleston	do	T.	.45	.40	.20	.50	.45														.60	.50	.25	.95	.85	.52	.65	.70	T.	.04	.80	7.66								
Chattanooga	do		.64		.26	.27	1.15													.79	.01	1.21	.10	.32	.21	1.98														
Clarksville	Cumberland	.56	.85	2.48	.06	2.10	.78	.03												.39	.01	.20	.20	.10	.90	.44		.14	1.50		10.53									
Clinton	Tennessee	.26	.75	.12	.53	.25	.56													.27	.20	.35	.20	.61	.85	T.	T.	1.40	6.35											
Dandridge	do		.04	.36	.04	.22														.28	.22	.68	.22	.50	.70			.62		3.88										
Decatur	do		.72	.03	.18	.39	.88	.42	.02										.51	.10	.71	.05	.48	T.	1.02	.88		.38	.72	7.49										
Dickson	Cumberland	.80	1.00	2.70		1.46	.86	.08											.33	.48		.23	.30																	
Dover	do	T.	1.41	1.57	1.95	T.	2.17	.59	T.										.49	T.	T.	.45		1.38	T.	T.	T.	T.												
Dunlap	Tennessee	1.09	.22	.21	.45	.55	.03												.31	.08	.83	.03	.33	1.76	.42			.85	.58	7.74										
Elizabethhton	do																		.05	.50	.25																			
Erasmus	Cumberland	.98	.23	.22	1.02	1.15	.15												.41	1.04	.09	.28	1.41	.26		.03	1.68	.17	9.12											
Florence	do	T.	1.70	.55	.56	1.12	.55	.17											.82	.04	.55	.05	.25	1.72	T.	T.	1.20	.34	9.65											
Franklin	do		.41	1.11	.67	1.63	.93												.29	.03	.95		.22	4.01																
Hall's Hill	do		.57	.30	.58	.57	1.14	.41											.20	.03	.75	.20	.32	.86	1.20															
Harriman	Tennessee	.33	1.43	2.83	.35	1.38	1.00	.10											.35	.75	.05	.20	2.77																	
Hohenwald	do		2.21	1.01	1.59	.44	.10	.21	.10	.62									.40	1.10	.04	.23	2.00																	
Iron City	do		.09		.07	.05	.14	.23											.30	.24	.16	.75	*	*	1.45	.56														
Jefferson City	do																			.80	.02	.37																		
Johnson City	do																																							
Johnsonville	do	T.	.50	.72	2.46	.08	1.86	1.00	.01										.30	1.1	T.	.24	.10			.02	.70	.06	10.36											
Kingston	do		.29	.70	.22	.50	.50	.48											T.	.38	.35	.36	.30	.05	.73		T.	1.41	7.17											
Knoxville	do		.11		.14	.22	.51	.02											T.	.34	.79	.03	4.44	T.	1.26		.01	.69	.28	4.84										
Lebanon	Cumberland	.85	.80	.41	.95	.56	.15												T.	.25	.50	.03	.21	3.17	T.	1.20	.75	9.87												
Lewisburg	Tennessee	.07	1.42	.54	.59	1.26	.82	.02											T.	.20	.04	.89	.03	.28	4.01	.90	.02		.13	1.74	12.11									
Loudon	do		.39	.29	.26	.32	.48	.43											T.	.46	.18	.50	.25	.18	.65	.80														
Lynnville	do		.04	1.2	.07	1.31	1.09	.72	T.										T.	.71	T.	.31	T.	.24	2.54	T.		.09	1.98	.16	11.39									
McGhee	do		.15	.11	.23	.43	.39											T.	.45	.35	.72	.35	T.	.82	.90			T.	.81	5.65										
McMinnville	Cumberland	.98	.27	.31	2.06	.85	.15											T.	.41	1.02	1.09	.04	.30	T.	1.51	.07	.06	.13	.36	9.80										
Maryville	Tennessee	.12		.15		.42														.62		.62	.50	.52																
Mountain City	do																			.80	.05	.44		.64	T.															
Nashville	Cumberland	.01	.47	1.74	1.59	.10	.96	.76											T.	.22	.61	.04	.10	4.06	T.		.02	1.27		22.01										
Newport	Tennessee		.02	.03	.10	.12	.22												T.	.39	.10	.60	.10	.40	.42	.60	.02		T.	.39	3.51									
New River	Cumberland		.69	.33	.40	.71	1.05	.68											T.	.34	.59	.62	.31	.30	.80	.98	T.		T.	.83	8.43									
Palmetto	Tennessee		1.00	.40	.20	1.00	.60	.60	T.										T.	.20	.30	.50	.40	.10	.78	T.														
Pinewood	do		.40		4.00														T.	.40	.60	.20			4.10															
Rogersville	do		T.		.05	.10	.07	.10	.36										T.	.32	.11	.73	.21	.23	.35	.70	T.			.95	.35	7.60								
Rugby	Cumberland		.50		1.40	2.43	1.5	1.25	1.05	T.									T.	.21	.10	.20			2.01															
Savannah	Tennessee		.08		.06	.10	.15											T.	.33	.96	.02	.51	.50	.66																
Sevierville	do		.43																T.	.87		.36			1.17															
Sewanee	do		.98	.31	.40	1.15	.70	.10										T.	.25	.10	.15	T.			1.50															
Sparta	Cumberland	.01	.58	1.48	1.46	.09	1.04	.69	.12									T.	.39	.24	T.	.24			1.39	.01	.10	10.45												
Springville	do		T.		.20	.07	.37	.34	.35									T.	.19	.26	.54	.16	.15	.38	.52	T.			1.07	4.60										
Tazewell	do				1.30	.40	.25	1.72	.75	.17								T.	.42	1.31	.30	.06	.32	.13	.39	.07	T.	1.60	.67	10.45										
Tullahoma	do																	T.	.05	.35	.80	.22	.30	.10	.60															
Walling	Cumberland	T.																T.	.45	.49	.06		.20	2.50	T.															
Waynesboro	Tennessee																	T.	.65	1.23	1.98	.30	.26	.90																
Wildersville	do		1.44		1.09	1.28												T.	.29	.50																				
Worsham	Cumberland		2.11	.50	.08	.80	.60	.08										T.	.33	.72	.03																			
Yukon	Tennessee																		T.	.45	.44	.10	.08																	
<i>Alabama.</i>																																								
Bridgeport	Tennessee		.03	.93	.36	.41	.44	.36											T.	.25	.40	.59	.69	.26	.02	.99	.81	T.	.01	1.49	9.04									
Decatur	do			1.97	1.32	.75	1.12	.60	.22									T.	.48	.08	.86	.30	.24</td																	

TABLE 3.—Maximum and minimum temperatures at selected stations for December, 1911. District No. 3, Ohio Valley.

Date.	Pennsylvania.				West Virginia.										Ohio.													
	Greenville.		Pittsburgh.		Charleston.		Elkhorn.		Elkins.		Glenville.		Huntington.		Morgantown.		Parkersburg.		Wheeling.		Canton.		Cincinnati.		Columbus.		Dayton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	38	21	41	27	55	30	44	19	46	28	47	30	45	25	41	28	43	30	46	29	40	26	43	29	40	26	38	26
2....	35	29	36	31	48	37	41	32	33	31	48	35	43	30	40	32	39	35	37	32	38	33	37	31	36	31	36	31
3....	31	23	35	23	48	31	46	29	40	28	45	31	46	33	42	29	39	28	35	29	35	26	44	27	34	18	37	21
4....	33	5	30	18	38	22	42	17	28	16	39	24	32	21	34	19	32	19	35	16	40	11	35	21	28	12	32	15
5....	40	13	36	21	44	21	41	24	43	10	33	17	40	20	39	19	42	21	42	15	40	19	48	24	38	20	42	24
6....	46	10	48	27	58	21	52	28	53	18	53	19	50	20	51	25	54	24	53	15	51	24	57	27	49	28	52	32
7....	51	14	54	29	61	29	60	25	58	20	57	20	54	24	56	30	54	27	51	18	54	25	59	32	52	34	51	36
8....	48	28	54	40	64	34	58	29	56	22	55	25	59	25	54	32	56	34	45	25	48	39	65	42	56	42	59	44
9....	48	39	54	48	72	38	60	36	54	20	61	30	62	32	57	42	57	37	51	34	50	45	65	49	53	47	55	48
10....	61	41	68	46	74	39	63	34	65	29	69	29	68	38	69	45	70	38	61	36	64	46	65	54	62	50	63	54
11....	57	50	61	58	70	48	65	38	62	54	64	40	64	42	63	55	63	54	61	30	59	54	63	49	59	48	59	45
12....	59	40	59	45	71	51	68	48	65	47	64	40	60	51	63	56	57	50	61	49	57	42	49	40	48	35	46	36
13....	41	33	51	35	60	40	65	40	58	27	60	40	43	40	58	35	54	33	40	38	43	36	43	34	39	32	41	31
14....	38	25	42	32	55	37	45	37	45	26	64	39	48	35	43	29	47	32	47	29	42	31	44	33	43	31	38	30
15....	43	36	47	39	55	45	55	40	54	44	59	43	57	37	50	41	49	43	48	35	46	38	43	37	42	35	40	36
16....	53	34	58	38	67	50	60	50	62	38	65	39	60	45	62	41	60	39	57	40	52	37	52	38	50	36	48	35
17....	40	31	58	32	58	38	57	47	58	38	52	36	42	39	47	35	40	36	41	35	40	33	38	34	37	31	36	32
18....	47	32	53	30	44	35	55	27	33	28	40	33	39	35	35	30	37	30	40	32	40	31	40	31	36	28	36	29
19....	34	27	34	28	40	25	42	20	35	20	53	19	38	26	32	23	37	26	43	23	43	26	40	29	36	30	38	29
20....	41	19	41	24	52	26	40	31	46	16	41	19	44	27	44	23	45	26	46	23	48	24	42	29	39	26	39	27
21....	43	33	49	36	64	39	46	29	50	39	48	33	54	29	47	35	52	37	48	24	46	35	51	39	49	35	48	36
22....	45	38	52	44	60	38	50	40	54	32	48	38	48	38	56	42	49	42	48	34	46	42	49	42	45	41	42	36
23....	45	31	47	33	54	44	50	41	50	39	52	45	46	40	54	39	47	43	48	41	45	34	44	35	43	34	41	32
24....	35	30	39	33	48	40	58	43	40	33	45	33	43	38	40	32	38	33	36	37	33	42	33	37	33	38	32	
25....	42	32	45	34	51	35	63	47	46	27	48	28	49	31	45	33	45	28	46	30	40	33	44	34	40	32	42	34
26....	50	34	56	40	52	39	65	45	57	29	47	35	58	36	50	38	56	40	57	33	51	38	58	54	37	55	37	56
27....	55	25	57	23	64	31	62	22	61	22	57	28	40	40	60	26	57	27	41	39	55	25	48	21	51	20	47	17
28....	25	14	23	14	33	22	30	18	24	16	32	20	30	22	28	16	29	20	29	17	26	15	31	16	27	14	28	14
29....	33	5	42	18	41	18	37	15	35	7	37	13	38	18	33	13	36	18	35	15	31	18	39	22	35	20	37	21
30....	36	16	45	32	50	35	50	33	44	35	48	31	57	22	47	29	48	36	51	15	41	29	46	38	42	33	43	34
31....	50	35	54	28	63	44	58	40	60	34	60	41	58	37	57	41	57	30	55	34	52	28	53	26	50	25	48	24
Mns.	43.3	27.2	45.7	32.5	55.3	34.9	52.5	33.0	48.4	28.2	51.3	30.7	48.9	32.1	48.2	32.7	48.0	32.6	46.2	29.2	45.2	31.5	47.7	33.5	43.6	31.1	43.8	31.7

Date.	Ohio.				Indiana.								Phil., Ill.								Kentucky.						
	Marion.		Waverly.		Butlerville.		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.		Beattyville.		Bowling Green.		Earlington.		Greensburg.		Lexington.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
1....	40	26	44	26	40	26	46	30	38	26	35	23	.....	41	24	39	22	49	17	53	25	49	19	51	17	43	24
2....	36	31	42	33	46	34	35	29	34	24	40	25	38	25	44	20	49	31	44	29	48	24	37	30	42	27	30
3....	33	23	41	30	41	29	45	29	38	21	32	26	.....	40	30	35	27	45	20	50	36	40	28	45	23	32	27
4....	32	11	35	16	38	11	39	24	34	18	32	0	.....	37	17	35	11	41	11	45	20	44	21	39	21	31	19
5....	40	12	45	17	40	21	48	27	44	26	40	13	.....	44	19	41	24	57	11	42	22	53	20	55	16	46	23
6....	49	21	56	19	53	30	53	34	51	32	48	25	.....	51	22	47	24	60	13	56	18	59	22	59	16	53	33
7....	48	25	59	22	57	32	54	41	54	36	49	32	.....	53	28	53	31	64	15	59	34	62	18	57	36	44	33
8....	48	36	62	30	63	43	61	48	60	45	55	37	.....	60	41	51	41	72	20	68	34	70	22	64	45	40	33
9....	49	43	63	34	64	42	63	54	66	50	55	48	.....	57	51	53	49	71	23	66	48	67	48	69	28	64	48
10....	59	47	66	44	65	52	63	56																			

TABLE 3.—Maximum and minimum temperatures at selected stations for December, 1911. District No. 3—Continued.

Date.	Kentucky.						Tennessee.										Alabama.		North Carolina.		Virginia.							
	Louisville.		Maysville.		Williamsburg.		Chattanooga.		Johnson City.		Knoxville.		Nashville.		Palmetto.		Sparta.		Waynesboro.		Decatur.		Asheville.		Big Stone Gap.		Wytheville.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	46	31	46	21	54	30	53	25	48	18	48	26	57	32	54	25	52	19	53	24	55	14	52	28	45	17	42	23
2....	45	34	42	25	57	31	54	33	47	19	49	34	51	36	53	30	51	20	52	22	54	24	47	31	48	24	45	29
3....	45	30	43	27	54	29	55	30	53	24	52	28	48	34	54	30	52	23	63	28	48	29	52	23	44	21	46	25
4....	38	22	38	19	56	30	42	30	51	25	39	26	43	26	42	25	42	28	44	27	52	29	37	23	37	22	31	21
5....	46	26	49	17	58	33	53	29	50	18	50	25	53	26	54	20	56	29	53	18	55	31	51	19	49	18	52	18
6....	56	30	59	16	60	37	54	28	56	19	53	28	56	29	59	25	61	21	52	22	59	23	61	24	56	22	63	24
7....	58	35	62	20	62	38	56	30	60	22	56	29	60	34	65	35	64	25	61	34	49	24	61	25	59	24	60	24
8....	66	45	68	23	53	40	64	36	62	25	62	32	67	38	69	35	68	28	69	40	69	29	64	31	62	28	62	25
9....	65	56	69	34	52	37	60	40	57	26	60	33	62	49	62	42	65	37	63	47	70	34	61	33	58	32	57	30
10....	66	57	69	45	48	33	69	52	68	35	61	44	67	55	68	56	69	54	63	56	71	42	59	42	67	34	59	29
11....	62	50	67	54	51	18	62	57	67	45	58	49	62	55	64	50	66	57	62	57	61	57	52	64	44	59	48	
12....	50	40	50	48	54	23	64	57	65	52	59	49	58	43	62	55	63	54	61	49	62	56	59	52	61	45	62	45
13....	44	36	44	37	49	24	59	48	54	50	56	47	51	40	59	44	58	46	49	42	54	47	56	49	58	45	55	42
14....	43	35	52	29	48	22	56	48	54	47	57	48	56	43	58	45	60	46	58	44	61	47	54	38	53	43	42	34
15....	43	38	49	35	52	23	52	47	59	45	54	49	56	43	58	47	58	51	52	44	57	49	58	40	55	49	47	34
16....	51	38	54	40	60	29	59	40	60	45	58	40	59	38	54	41	59	40	54	43	45	45	64	41	58	51	56	44
17....	40	32	42	36	65	34	43	38	40	37	41	33	45	34	46	35	43	36	56	32	47	35	41	35	54	36	44	28
18....	41	29	44	26	67	35	50	36	46	28	47	33	52	29	50	26	50	24	50	25	46	30	46	30	45	27	40	28
19....	42	29	43	23	66	38	48	36	45	23	47	31	49	34	51	29	52	26	53	34	53	31	44	26	43	24	39	21
20....	43	32	45	23	65	35	47	35	50	24	49	35	54	35	54	39	52	37	54	42	46	29	38	28	42	27	30	23
21....	54	42	57	28	63	36	50	44	57	33	53	44	49	45	50	42	53	47	50	38	50	38	52	36	58	42	35	28
22....	50	42	48	30	61	37	52	45	51	40	51	46	51	46	51	47	57	46	56	44	55	42	48	40	58	41	46	35
23....	44	36	43	36	62	38	52	46	49	42	50	45	48	41	50	42	53	44	44	50	45	52	44	50	46	51	43	
24....	50	36	43	32	61	38	51	44	50	43	52	44	52	40	50	40	54	40	53	39	53	45	50	35	48	41	48	40
25....	44	39	46	27	57	34	58	45	50	34	57	46	52	43	61	38	57	40	51	39	63	40	50	34	51	37	45	32
26....	58	40	59	32	53	33	66	50	60	41	68	46	64	46	67	49	64	45	70	50	68	41	58	45	56	36	58	38
27....	43	23	35	34	54	26	55	32	42	42	56	31	46	28	58	31	64	30	53	30	39	34	61	26	65*	31	58	27
28....	32	19	34	16	41	22	37	26	35	23	34	25	34	20	35	20	35	20	38	18	38	22	31	21	32	22	30	20
29....	41	25	38	16	60	18	45	26	40	17	42	23	43	25	43	23	51	20	35	23	43	22	49	16	40	18	38	15
30....	51	38	54	24	58	25	51	38	56	18	45	37	59	38	55	38	51	38	44	30	68	38	47	33	44	32	43	33
31....	52	27	55	36	45	21	59	35	59	39	58	37	59	27	56	37	55	40	38	32	52	48	60	38	57	43	54	40
Mns..	48.7	35.2	49.9	29.6	56.3	30.5	54.1	38.9	53.2	32.2	52.6	37.2	53.6	37.3	55.3	36.8	56.0	35.8	53.5	35.9	54.8	36.1	52.4	33.6	52.1	33.0	48.3	30.5

*, **, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

Data are from standard instruments not supplied by the U. S. Weather Bureau.

Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.